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**(2417) Mapping
and Inspection of
Underground
Utilities**

**Small or Big – we
don't mind!
Piccolo o Grande
– non c'importa!
Watermain
Inspection
Technologies**

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**Small or Big – we don't mind!
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Watermain Inspection Technologies**

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ABSTRACT: When we speak about CCTV inspection, the first thing that comes to mind is a sewer inspection. However, watermain inspection is more limited because of the implications regarding isolation of the watermains and dewatering of the pipes to have access. In the past 8 to 10 years, technology has been introduced that allows for watermain inspection and leak detection of both small diameter and large diameter pipes without always having to put the pipe out of service or without having to dewater the pipe.

For smaller diameter pipes (100mm to 300mm), access to the pressurized watermain is done through existing fire hydrants or existing ball valves on the main. This takes some coordination with water utilities to prepare the hydrants or access points before the inspections. The presence of tuberculation (iron oxide) on the inside of the pipe and bends in the pipe will have an impact on the length of inspection.

For larger diameter pipes (> 300mm), access to the pressurized watermains is usually done through air release valve or other accessories that are typically on the crown of the pipe. In other cases, a depressurized watermain can be accessed through a lid in a valve chamber.

This paper will present the different technologies that will allow municipalities to inspect their watermains without having to depressurize the pipe and in other instances, can be depressurized but not necessarily dewatered to get an inspection. Following the description of the different inspection technologies, case studies and project results will be presented.

Abstracts should be limited to 300 words maximum.